Two New Species of Axonopsinae (Hydrachnellae, Acari) from Japan [1,2)]

By

Taiji IMAMURA

Department of Biology, Faculty of Science, Ibaraki University,
Mito, Ibaraki 310, Japan

Synopsis

IMAMURA, Taiji (Department of Biology, Faculty of Science, Ibaraki University): Two new species of Axonopsinae (Hydrachnellae, Acari) from Japan. *Acta arachnol.*, **27** (Special number): 109–113 (1977).

Two new species of the interstitial water mites, *Axonopsis* (*Brachypodopsis*) *kasamensis* n. sp. from Ibaraki-ken and *Lethaxona morimotoi* n. sp. from Hyôgo-ken are described.

Sixty-eight species of the interstitial water mites have hitherto been reported from Japan. In this time, two more new species were found among the author's collection as below:

Axonopsinae VIETS, 1929

1. *Axonopsis* (*Brachypodopsis*) *kasamensis* n. sp.
2. *Lethaxona morimotoi* n. sp.

The descriptions of the new species are given in the following.

The type-specimens consulted in this paper are all deposited in the collection of the Department of Biology, Faculty of Science, Ibaraki University, Mito.

1. *Axonopsis* (*Brachypodopsis*) *kasamensis* n. sp.[3)]

(Fig. 1)

Female (Holotype, Prep. No. 1658). Body elliptical in outline, dorso-ventrally flattened, measured 410 μ long, excluding epimera, and 320 μ wide. Margin of body

1) This paper is dedicated to Professor Takeo YAGINUMA, Biological Laboratory, Ohtemon-Gakuin University, Osaka, in honor of his sixtieth birthday, February 2, 1976.

2) Contribution No. 42 from the Itako Hydrobiological Station, Ibaraki University.

3) The new species was named in accordance with the locality where the specimen was captured.

Table 1

	I	II	III	IV	V
Extensor surface	27	42	21	57	24
Height	15	30	18	21	9

finely zigzagged. Anterior margin almost straight. Antero-lateral corners somewhat roundly swelled (Fig. 1, a). Eyes small and the interval between them is 150 μ. Dorsal grooves distinct. Four pairs of glandularia on dorsal shield.

Maxillary organ 63 μ long. Palps short and rather thick. P–IV much bowed out on the flexor margin, bearing two moderately stout spines (Fig. 1, c). P–V short and small. Palpal segments measured as shown in Table 1, in μ:

Mandibles 75 μ long, including a claw. Maxillary socket 88 μ long and 48 μ wide at the entrance. Anterior coxae relatively broad and protruded beyong the anterior body margin. Legs with some spines but no particular bristles, measuring the

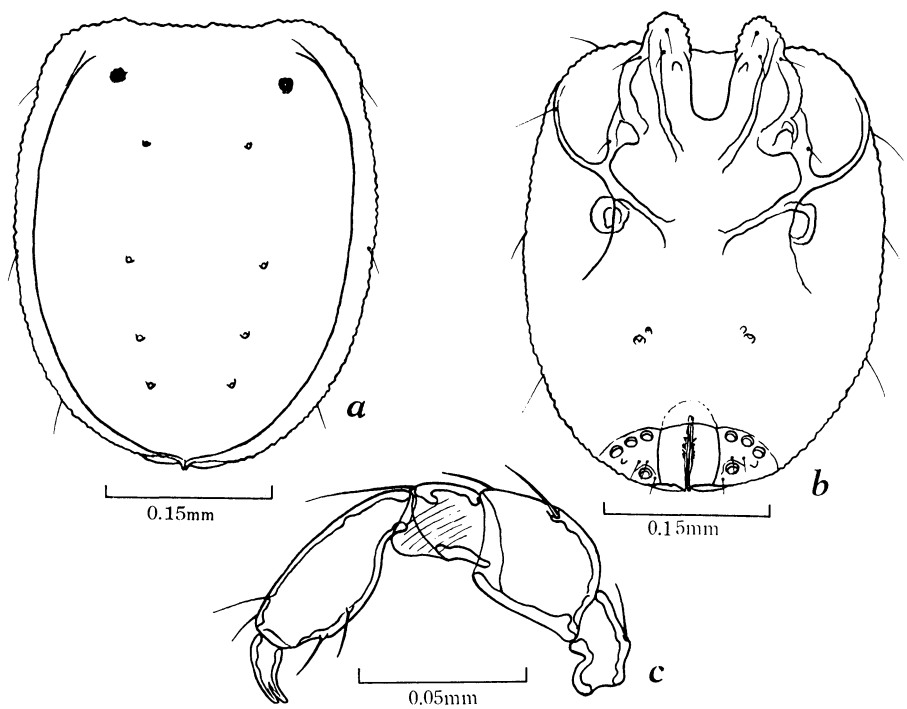

Fig. 1. *Axopnosis* (*Brachyposopsis*) *kasamensis* n. sp., female: a, dorsum; b, venter; c, palp.

length in μ: L–I, 270; L–II, 310; L–III, 285; L–IV, 400. Genital acetabula in four pairs, arranging as shown in Fig. 1, b. Gonopore located at the posterior most of venter, measuring 64 μ long and 52 μ wide. Excretory pore opening on the posterior body margin. Body light yellow in color in the preservative.

Type-locality. One female was collected by the author in the interstitial water (wat. temp., 25°C; pH, 6.4) in the River Hinuma at Kasama, Ibaraki-ken on Aug. 22, 1965.

Remarks. Though this new species resembles *Axonopsis coerulea* (PIERSIG, 1906) from Thailand and the Japanese species *A. yokotai* IMAMURA, 1957 from Kôchi-ken, it is different from them by the features of palp, especially in the fourth segments, and of the arrangement of the genital acetabula. The male is not yet found.

2. *Lethaxona morimotoi* n. sp.[1)]

(Fig. 2)

Female (Holotype, Prep. No. 1556). Body oval in contour, 268 μ long and 208 μ wide. Eyes reduced. Dorsal main shield and coxal plates all covered with hexagonal pattern and granulated appearance. Dorsal main shield measured 228 μ long and 162 μ wide, and with two pairs of glanudularia on it. Nine pairs of marginal plates surround the main one.

Maxillary organ 40 μ long and 32 μ wide. Mandibles 32 μ high and 60 μ long, including a claw. P–IV relatively short. Palpal segments measured as shown in Table 2, in μ.

Ventral shield as shown in Fig. 2, c. Maxillary socket 44 μ long and 32 μ wide at the entrance. Legs measured in μ: L–I, 198; L–II, 180; L–III, 204; L–IV, 261. Right first leg as shown in Fig. 2, d. Gonopore 36 μ long. Body almost colorless in the preservative.

Type-locality. One female was collected by Y. MORIMOTO on Aug. 26, 1956 in a well (wat. temp., 20.6°C and pH, 6.0 by Mr. Y. MORIMOTO) at Wadayama-chô, Asago-gun, Hyôgo-ken.

Table 2

	I	II	III	IV	V
Extensor surface	15	30	15	42	22
Height	13	19	15	15	6

1) This new species has been named in honour of Mr. Y. MORIMOTO who collected the specimen.

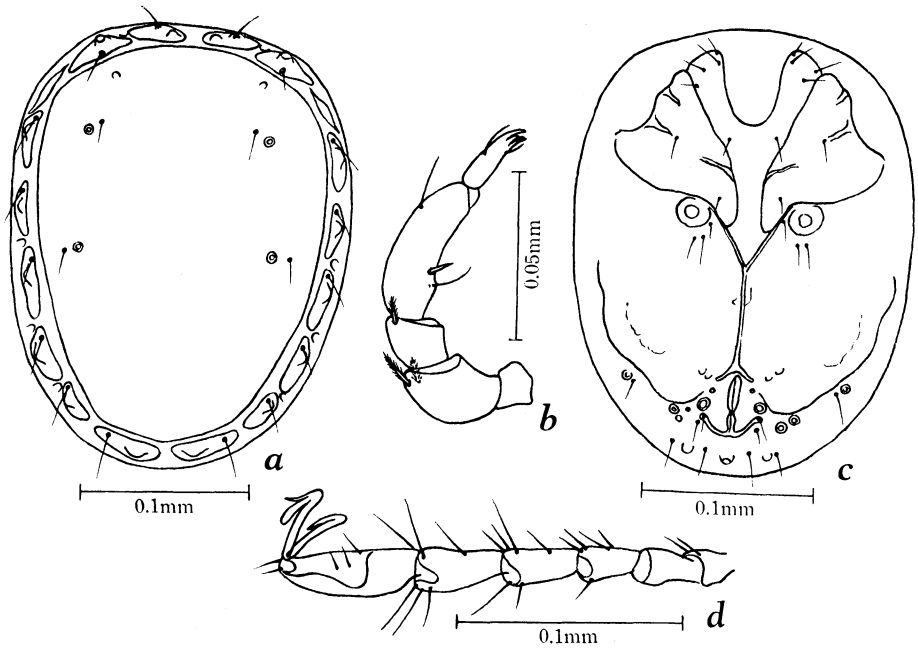

Fig. 2. *Lethaxona morimotoi* n. sp., female: a, dorsum; b, palp; c, venter; d, right first leg.

Remarks. This new species resembles most *L. mikawaensis* IMAMURA, 1957 from Mikawa-mura, Hyôgo-ken, but the body is more slender and the fourth segment of palps is relatively shorter than that of *mikawaensis*. Though this new species also resembles Hungarian species *L. cavifrons* SZALAY, 1943 and Yugoslav species *L. pygmaea* VIETS, 1932, it is distinguished from those two species by the shapes of dorsal shields and by the location of spines on the flexor surface of P–IV. The decision of the subgeneric name of this new species should be deferred until the male is found.

Acknowledgement

The writer wishes herewith to express his hearty gratitude to Mr. *Yoshinobu* MORIMOTO, Himeji Municipal High School, who collected a part of the specimens consulted in this paper, and put it at the author's disposal for research.

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摘　　要

今村泰二（茨城大学理学部生物学教室，〒310 茨城県水戸市文京2-1-1）：日本からの Axonopsinae 亜科（ミズダニ類）の2新種．

1. 地下水生ミズダニ類の次の2新種について記載した．

2. *Axonopsis* (*Brachypodopsis*) *kasamensis* n. sp. は茨城県笠間の涸沼川の砂間隙水中から雌1個体が採れたもので，体長 410 μ である．

3. *Lethaxona morimotoi* n. sp. は兵庫県朝来郡和田山町の井戸から雌1個体が森本義信氏によって採集されたもので，体長 268 μ である．雄が採れていないため，亜属名の決定はできない．